

Amendments to the Claims

1 1. (currently amended) A method for encoding a video, comprising an
2 encoder system for performing steps of the method, comprising the steps of:
3 applying a three dimensional dual-tree discrete wavelet transform to
4 the video to generate a plurality of three dimensional sequences of wavelet
5 coefficients having spatial and temporal correlation; and
6 compressing the plurality of three dimensional sequences to produce a
7 compressed bitstream corresponding to the video, and in which the
8 compressing further comprises:
9 selecting iteratively the wavelet coefficients in a large to small order,
10 in which the selecting is a noise shaping method.; and
11 entropy encoding the selected wavelet coefficient; and in which the noise
12 shaping method further comprises:
13 quantizing the wavelet coefficients to produce quantized wavelet
14 coefficients;
15 inverse transforming the quantized wavelet coefficient to a quantized
16 video;
17 determining an error signal between the video and the quantized video;
18 applying the three dimensional dual-tree discrete wavelet transform to
19 the error signal; and
20 adding the transformed error signal, after a delay, to the quantized
21 wavelet coefficients.

2. (canceled)

1 3. (currently amended) The method of claim 1 2, further comprising:
2 predicting a subset of the wavelet coefficients of the three dimensional
3 sequences.

1 4. (previously presented) The method of claim 1, in which there are four
2 sequences.

1 5. (currently amended) The method of claim 1 2, in which the entropy
2 encoding is arithmetic encoding.
3

4 6. (currently amended) The method of claim 1 2, in which the entropy
5 encoding is content-adaptive arithmetic coding.

7. (canceled)

1 8. (previously presented) The method of claim 1, in which the noise shaping
2 method modifies large wavelet coefficients to compensate for a loss of small
3 wavelet coefficients, without substantially changing content of the video.

9. (canceled)

1 10. (previously presented) The method of claim 1, in which the selecting uses
2 a matching pursuit method.

1 11. (original) The method of claim 10, in which the matching pursuit method
2 iteratively selects the wavelet coefficients in a large to small order.

12. (canceled)

13. (canceled)

1 14. (original) The method of claim 3, in which the predicted subset of the
2 wavelet coefficients are in low energy subbands.

1 15. (previously presented) The method of claim 1, in which the sequences
2 are encoded bitplane by bitplane in a most significant bit to least significant
3 bit order.

1 16. (original) The method of claim 1, in which the compressed bitstream is
2 expressed as multiple descriptions.

1 17. (previously presented) The method of claim 16, in which the plurality of
2 three dimensional sequences are coded independently to produce the
3 multiple descriptions.

1 18. (original) The method of claim 16, in which subsets of the wavelet
2 coefficient are coded to produce the multiple descriptions.

1 19. (original) The method of claim 16, further comprising:
2 estimating, in a receiver, lost descriptions from a subset of the
3 multiple descriptions received.